ENERGY STAR® Ceiling Fan Partner and Industry Meeting Summary
Dallas Market Center, Dallas, Texas
June 24, 2002

More than 30 people from ceiling fan partner companies, lighting OEMs, and other industry players attended the ENERGY STAR Ceiling Fan Partner and Industry Meeting hosted by Hunter Fan Company and EPA in Dallas. The meeting was held in conjunction with the Dallas Market Show. Provided below is a summary of the discussions that took place during the meeting. Each section ends with comments and/or questions that were posed by the group; ENERGY STAR representative are working on addressing these items. Presentations for the meeting can be downloaded from the ENERGY STAR Web site by visiting www.energystar.gov/products and clicking on the "Products in Development" icon on the bottom of the page.

Presentation: ENERGY STAR Ceiling Fan Program Update Kate Lewis, EPA
Kate Lewis began the presentation by sharing the program successes to-date; six months after the official launch of ENERGY STAR for Ceiling Fans. She then presented ENERGY STAR's marketing and promotional plans over the next year including: plans for a new and improved Web site, National promotions for 2002/2003, showroom outreach, and utility coordination. Ms. Lewis also shared a number of advertising examples to the group that were developed to promote ENERGY STAR labeled ceiling fans. Attendees were encouraged to submit their advertisements or other promotional materials to EPA. Contact Kate Lewis at lewis.kate@epa.gov.

Comments/questions from the group:

- How can non-ALA showrooms become ENERGY STAR partners? How can this information be added to the Web site?
- Of the 150,000 hits on the ENERGY STAR Web site each month, how many are ceiling fan-specific?
- Request for EPA to send results from the CA ceiling fan study on usage and energy savings potential to all partners and interested parties.
- Can manufacturers receive information about utilities that are offering ENERGY STAR rebates in a more timely manner?
- The Market Performance label is very hard for manufacturers to implement due to the added cost – especially for smaller product lines.

Presentation: The Ceiling Fan Testing Procedure
Intertek Testing Services (ITS) Presentation, Mark Keller, ITS
Ceiling Fan Testing Facility Guidance Manual, Rebecca Miller, ICF Consulting

Mark Keller presented some background on the ITS facility and discussed the various testing services that currently offered at the facility. He then shared pictures of the ceiling fan testing chamber with the group and described the testing process. Mr. Keller presented a number of graphs plotting all of the fans tested and which of these models passed at the various speeds (total CFM and CFM/watts). He finished the presentation with a discussion on how to ensure that testing is accurate and reporting complete.

Ms. Rebecca Miller announced that the Draft (Version 1.0) Ceiling Fan Testing Facility Guidance Manual is now available for review on the ENERGY STAR Web site at www.energystar.gov/library under the heading "ENERGY STAR for Products: Ceiling Fans". The deadline to provide comments is **July 26, 2002**. Ms. Miller then asked the group of the importance of getting the manual accredited/certified; most of the attendees agreed that this would good albeit a long and lengthy process.

Lighting Panel Discussion: Energy-Efficient Lighting Opportunities

Moderator: Mark Pfeiffer, WAC Lighting
Panel: Stan Zajac, Advance Tranformer
Matt Donati, Phillips
Sandy David, TCP

Mark Pfeiffer led the panel through a series of questions to generate discussion among the group (see Lighting Panel presentation). The purpose of panel was to bring members of both the ceiling fan and lighting industries together to discuss available technologies and the barriers/obstacles to implementing and marketing these technologies. The group also discussed the needs of the ceiling fan industry in terms of energy-efficient lighting technology. Specific facts, notes, and comments from the group are provided in the bullets below:

- Energy-efficient lighting was defined as "..a quality light source which meets the needed applications with the lowest energy usage".
- Lumens go down a little – 12-15% - after the 1st 1,000 hours. There is some concern that this presents a light quality issue.
- Regarding the marketing of CFLs, we need to see energy-efficient light sources as an alternative to incandescent; not as a substitute.
- If you replace an incandescent (60 W) with a CFL you can save up to $45 ($.10/kWh) (Philips).
- There is a market movement toward high frequency electronic ballasts which provides the highest lumens/watt coupled with a CFL lamp.
- There are dimming products on the market – these products already save energy and now with CFLs, can save even more. Question: does dimmability affect the life of the bulb? Answer from group: it should not affect the life of the product.
- Comment from group: Lighting manufacturers need to understand the décor needs of the fan industry.
- A lamp color rendering (CRI) of 100 is comparable to incandescent lighting. Most CFLs have a CRI of 84 – very close.
- Ballast warranty is 5 years and the fan warranty is 30 years – this creates a problem. In the case of faulty lighting, the consumer will bring the whole fan back even though it works perfectly. Though a few retailers stock replaceable ballasts, the fan manufacturers feel that consumers will be unwilling to go through the hassles of replacing the ballast themselves and would rather purchase a new fan under warranty. One solution: do not package the light kits with the fans.

- Need to make sure that when fans with energy-efficient lighting are offered; there are replacement ballasts and/or bulbs stocked and sold at the same location.
- Right now the biggest sellers are the three- and four-branched light kits; rather than the fishbowl (which currently house a lot of the energy-efficient lighting). There needs to be some technology that will allow fan manufactures to offer efficient lighting in these applications.
- In designing efficient lighting, OEMs really need to work with the fan manufacturers on remote control, noise, and smart control issues.
- Advance Transformer: One ballast can drive three or four lights (branched fixtures). The technology is there, we just need to develop the product.
- Philips: T-5's emerging that are smaller in diameter and dimmable.
- Advance and TCP: research is driven by general lighting industry first, then they work on fan applications for the same technology.
- There is concern from the fan industry of the potential problem with ballast temperatures.
- Energy-efficient lighting will drive up the price for the end user: we need more educational efforts targeting the consumer. Would the consumer be willing to pay a higher cost of an energy-efficient light kit?
- EPA is working on achieving 60% recognition of the ENERGY STAR label by 2005 through increasing efforts in utility and regional sectors to get the message out.
- Retail chain challenge: big chains will not stock a product unless there are a number of different brand choices. Lack of volume is an issue with stocking special lighting technologies.
- Work with bulb partners to ensure that stores are being stocked with replacements.
- Idea from group: design fixtures with socket and leave it up to the consumer to buy the bulb.
- TCP is working on both screw-based and pin-based products. One they develop a technology for screw-based they convert it quickly to pin-based applications. Offering anywhere from 2,700 (std. incandescent) – 6,500 Kelvin; matching standard lighting in all different colors.
- The fan industry needs hidden ballasts to incorporate into three- and four-branched fixtures styles (biggest seller in the market). There is an overall concern that décor changes would be needed to hide the ballasts and CFLs, which tend to stick out and cast a shadow within the fixture.
- Need a shielded bulb that appears as an incandescent and does not shield light output.
- Angelo/Westinghouse provided an example of what VIVA developed to replace the standard A-19 shape of the incandescent and passed it around the room.
- TCP: 90 days away from introducing a pin-based product for four-branched designs.
- Group comment: glass manufacturers need to redesign product to cover CFLs (i.e., this year alabaster and brown glass is in which allow opportunity for CFLs).
- Group is concerned about returns since CFLs lose some light output after the 1st 1,000 hours. Need to include text on packaging that this is normal.

Group Discussion: Tier I Requirements Andrew Fanara, EPA

Andrew Fanara lead the group through each Tier I requirement of the current ceiling fan specification to determine if there are needed clarifications or revisions. Comments and questions from this discussion are provided below:

- Change definition of Integral since the light kit is not hardwired to the ceiling fan; it just comes in the same box. This means the definition of attachable may have to change as well.
- For fans with more than three speeds, manufacturers can decide which speeds should be tested. For fans with only one or two speeds; report only those.
- Suggestion: EPA needs to work with factors that are not yet available and may not be available in time for the Tier II spec (i.e., pin-based lighting).
- Labeling comment: Can the ENERGY STAR logo be placed on a box that has an ENERGY STAR fan with an incandescent light kit – if it includes text that explains that it is a qualified fan only?
- Hugger fans – what % do hugger fans have in the market? EPA needs performance data and unit sales. The current test method is not meant for hugger fans. If we use the current specification for huggers, then we may be able to move that market. A number of ceiling fan partners volunteered to provide this information. Barrier: huggers would have to move much faster to meet current specification (CFMs) – people may think that something is wrong with the fan b/c it is rotating so fast.
- The 5% allowance in testing limits should be revisited. This allowance should only be applicable to fans tested in the field compared to representative fan results – 5% on the current specification just allows fans to qualify lower than the specification and then tack on another 5% and the performance is even more off. There is slight variation in the field but there should not be this wide variance in the testing results – if so then we should just make the minimum levels 5% lower than what is currently written. Suggestion: include a statement that says "the goal of ENERGY STAR is to reach at least the minimum CFM and CFM/watt requirement".
- Again, there is an issue with the lighting and fan warranties being different levels. If the lighting goes bad, the consumer wants to return the whole fan. Suggestions: include separate language on the box which explains that the 30-year warranty on applies to fan and 2-yr. warranty applies to lighting only OR make lighting warranty same as motor or parts warranty. There were also comments about raising the warranty to lifetime or 50 years.
- Noise definitely should be addressed when reviewing the Tier II specification requirement.
- Reporting Requirement: insert "finish" after housing to indicate that differences in housing type, shape, etc. is not acceptable when reporting additional models under one reference fan.
- Manufacturer Challenge: the challenge should require either EPA or the test lab to inform the manufacturer (in questioning) of which model is under review: include

some standard notification text. Also, if the fan was tested at one lab, it should be retested at another to see if results are the same.

Group Discussion: Tier II Requirements Andrew Fanara

Andrew Fanara lead the group through each Tier II requirement of the current ceiling fan specification to determine what items need to be revisited and possibly, revised. Comments and questions from this discussion are provided below:

- Most fans fail testing at medium and low speeds; therefore, to get the right CFM, the speeds need to be changed which may lead to higher energy consumption. All fans tested are passing medium CFMs but not all passing CFM/watts (ITS).
- If we make the medium speed too low, people may use high speed instead and use even more energy. Noise could become an issue when setting high CFM standards. Idea: manufacturers could incorporate an additional "high" medium speed.
- Suggestion: set the minimum airflow at high speed to 3000 CFM and change the accompanying efficiency requirement to 90 CFM/watt. Rationale was that this would create a more comfortable setting in a home and prevent consumers from running their fans too high.
- Power factor addition: EPA should address this at a later date.
- We should introduce different specifications for different sized fans. There are some high efficiency fans out there but they are not passing current specification because of size. This also will ensure that consumers are buying the right fan for the specific room size; not just based on energy efficiency.
- We should specify a standard fan size to ensure accurate testing b/c there are different calculations for each cylinder size and some sizes (i.e., 51") could be off since the sensors do not line up with the cylinder quite right.
- EPA to begin looking into hugger fan spec (separate) in Tier II (lower priority).
- Suggestion: include horizontally-mounted slide-switch to the Controls requirement.
- Standby power definition: lowest power mode (sleeping mode) – EPA requested data from group.
- Should residential fans larger than what is laid out in the specification, be allowed to qualify as ENERGY STAR?